

WHAT IS CLAIMED IS:

1. A communication line connecting adapter comprising:

a Voice over Internet Protocol (VoIP) gateway which performs protocol conversion for telephone communication;

5 means which connects a call for a general telephone to said general telephone;

means which connects a call for an IP (Internet Protocol) phone to said general telephone via said VoIP gateway; and

10 means which connects a call for said general telephone to said IP phone via said VoIP gateway.

2. The communication line connecting adapter according to claim 1, further comprising:

means which connects an incoming call to said VoIP gateway and a modem/facsimile section;

15 means which judges whether or not a control signal for initiating facsimile communication or modem communication has come from a calling party;

means which disconnects said VoIP gateway from a public telephone line when it is judged that said control signal has come; and

20 means which disconnects said modem/facsimile section from said public telephone line when it is judged that said control signal has not come yet.

3. The communication line connecting adapter according to claim 1, further comprising:

25 a modem/facsimile section which performs modem communication and facsimile communication; and

means which connects said VoIP gateway to said modem/facsimile

section.

4. The communication line connecting adapter according to claim 1,  
further comprising:

5           a modem/facsimile section which performs modem communication  
and facsimile communication; and  
means which connects said modem/facsimile section to an outside line.

5           6. The communication line connecting adapter according to claim 1,  
further comprising:

10          a modem/facsimile section which performs modem communication  
and facsimile communication; and  
means which connects said modem/facsimile section to an extension  
line.

15          6. A communication line connecting adapter which connects a public  
telephone line, an extension line, a VoIP (Voice over Internet Protocol)  
gateway and a modem/facsimile section and comprises:

20          a first switch;  
a second switch;  
a third switch;  
a line which connects a common terminal of said first switch to said  
modem/facsimile section via a first DAA (Data Access Arrangement) circuit;  
a line which connects a zeroth node terminal of said first switch to  
said public telephone line and a common terminal of said second switch;  
a line which connects a first node terminal of said first switch to said  
VoIP gateway via an SLIC (Subscriber Line Interface Circuit);  
25          a line which connects said first node terminal of said first switch to a  
zeroth node terminal of said third switch;  
a line which connects a zeroth node terminal of said second switch to

said VoIP gateway via a second DAA circuit;

a line which connects a first node terminal of said second switch to a first node terminal of said third switch; and

5 a line which connects a common terminal of said third switch to said extension line.

7. The communication line connecting adapter according to claim 6, further comprising:

means which connects said public telephone line to said VoIP gateway and said modem/facsimile section by connecting said common terminal of 10 said first switch to said zeroth node terminal thereof and connecting said common terminal of said second switch to said zeroth node terminal thereof, when there is an incoming call from said public telephone line;

15 means which judges whether or not a control signal for initiating facsimile communication or modem communication has come from a calling party;

means which disconnects said VoIP gateway from said public telephone line by connecting said common terminal of said second switch to said first node terminal thereof when it is judged that said control signal has come; and

20 means which disconnects said modem/facsimile section from said public telephone line by connecting said common terminal of said first switch to said first node terminal thereof when it is judged that said control signal has not come yet.

8. The communication line connecting adapter according to claim 6, 25 wherein when said communication line connecting adapter is not powered on, said common terminal of said second switch is connected to said first node terminal thereof and said common terminal of said third switch is

connected to said first node terminal thereof, thereby connecting said public telephone line to said extension line.

9. The communication line connecting adapter according to claim 6,  
further comprising means which connects said extension line to said VoIP  
5 gateway by connecting said common terminal of said third switch to said  
zeroth node terminal thereof.

10. The communication line connecting adapter according to claim 9,  
wherein said VoIP gateway is connected to an IP network and said extension  
line is connected to said IP network by connecting said common terminal of  
10 said third switch to said zeroth node terminal thereof.

11. A method for connecting communication line using a  
communication line connecting adapter as recited in claim 6, comprising the  
steps of:

15 connecting said public telephone line to said VoIP gateway and said  
modem/facsimile section by connecting said common terminal of said first  
switch to said zeroth node terminal thereof and connecting said common  
terminal of said second switch to said zeroth node terminal thereof, when  
there is an incoming call from said public telephone line;

20 judging whether or not a control signal for initiating facsimile  
communication or modem communication has come from a calling party;

disconnecting said VoIP gateway from said public telephone line by  
connecting said common terminal of said second switch to said first node  
25 terminal thereof when it is judged that said control signal has come; and  
disconnecting said modem/facsimile section from said public

telephone line by connecting said common terminal of said first switch to  
said first node terminal thereof when it is judged that said control signal  
has not come yet.

12. A communication line connecting adapter which connects a public telephone line, a VoIP (Voice over Internet Protocol) gateway and a modem/facsimile section and comprises:

- 5            a first switch;
- a second switch;
- a line which connects a common terminal of said first switch to said modem/facsimile section via a first DAA (Data Access Arrangement) circuit;
- a line which connects a zeroth node terminal of said first switch to said public telephone line and a common terminal of said second switch;
- 10            a line which connects a first node terminal of said first switch to said VoIP gateway via an SLIC (Subscriber Line Interface Circuit); and
- a line which connects a zeroth node terminal of said second switch to said VoIP gateway via a second DAA circuit.

13. The communication line connecting adapter according to claim 12,  
15 further comprising:

means which connects said public telephone line to said VoIP gateway and said modem/facsimile section by connecting said common terminal of said first switch to said zeroth node terminal thereof and connecting said common terminal of said second switch to said zeroth node terminal thereof,  
20 when there is an incoming call from said public telephone line;

means which judges whether or not a control signal for initiating facsimile communication or modem communication has come from a calling party;

25 means which disconnects said VoIP gateway from said public telephone line by disconnecting said common terminal of said second switch from said zeroth node terminal thereof when it is judged that said control signal has come; and

means which disconnects said modem/facsimile section from said public telephone line by connecting said common terminal of said first switch to said first node terminal thereof when it is judged that said control signal has not come yet.

5        14. A communication line connecting method using a communication line connecting adapter as recited in claim 12, comprising the steps of:

connecting said public telephone line to said VoIP gateway and said modem/facsimile section by connecting said common terminal of said first switch to said zeroth node terminal thereof and connecting said common terminal of said second switch to said zeroth node terminal thereof, when there is an incoming call from said public telephone line;

judging whether or not a control signal for initiating facsimile communication or modem communication has come from a calling party;

15        disconnecting said VoIP gateway from said public telephone line by disconnecting said common terminal of said second switch from said zeroth node terminal thereof when it is judged that said control signal has come; and

20        disconnecting said modem/facsimile section from said public telephone line by connecting said common terminal of said first switch to said first node terminal thereof when it is judged that said control signal has not come yet.

15. A communication line connecting adapter which connects a public telephone line, a VoIP (Voice over Internet Protocol) gateway and a modem/facsimile section and comprises:

25        means which connects said public telephone line to said VoIP gateway and said modem/facsimile section when there is an incoming call from said public telephone line;

means which judges whether or not a control signal for initiating facsimile communication or modem communication has come from a calling party;

means which disconnects said VoIP gateway from said public telephone line when it is judged that said control signal has come; and

means which disconnects said modem/facsimile section from said public telephone line when it is judged that said control signal has not come yet.

16. A communication line connecting method which connects a public telephone line, a VoIP (Voice over Internet Protocol) gateway and a modem/facsimile section and comprises the steps of:

connecting said public telephone line to said VoIP gateway and said modem/facsimile section when there is an incoming call from said public telephone line;

judging whether or not a control signal for initiating facsimile communication or modem communication has come from a calling party;

disconnecting said VoIP gateway from said public telephone line when it is judged that said control signal has come; and

disconnecting said modem/facsimile section from said public telephone line when it is judged that said control signal has not come yet.